Course #: Math 2301
Course Title: Math for Social Sciences II
Credit Hrs: 3.0
Term: Fall 2009
Course Meetings & Location: TR 10:30am-11:50am
LART 205
Prerequisite Courses: An adequate score on a placement examination, or
Math 1320 or Math 1508 or TCCN Math 1314.
Course Fee: (if applicable) N/A
Instructor: Maria Pia Beccar Varela
Office Location: Bell Hall 216
Contact Info: Phone # 915-747-8038
E-mail address: mpvarela@utep.edu
Fax # 915-747-6502 (Math Department)
Emergency Contact: 915-747-5761 (Math Department)
Office Hrs: Monday 2:30-4:00pm - Wednesday 2:30-4:00pm.
Textbook(s), Materials:
Strongly encouraged:
TI-83 or TI-84 Calculator

Course Objectives (Learning Outcomes):
1. Use matrix algebra for different applications.
2. Learn the meaning and applications of the derivative.
3. Learn how to apply several Techniques of Differentiation
4. Learn the meaning and applications of the integral.

Chapter 3 - Matrix Algebra and Applications
Chapter 10 - Introduction to the Derivative
Chapter 11 - Techniques of Differentiation
Chapter 12 - Applications of the Derivative
Chapter 13 - The Integral

Course Activities/Assignments:
I will assign group homework, and quizzes (in class) that will be based in the textbook homework problems. I will not collect textbook hw problems, but you should solve them, in order to have a good performance in the group homework, and quizzes.

Assessment of Course Objectives:
Exams: Two exams will be given. The dates of the exams are below in Course schedule. There are no make-ups.
Quizzes and Group hw: One quiz or group hw will be given each week. There are no make-ups.
Final Exam: The comprehensive final exam will be given on 12/10 from 10:00 am to 12:45 pm.
Course Schedule:

8/24 – 8/28 Chapter #3, Section 3.1 Matrix Addition and Scalar Multiplication, Ex 1, Matrix Addition and Subtraction. Scalar Multiplication. Section 3.2 Matrix Multiplication, the Product row x Column.
8/31 – 9/4 Section 3.3 Matrix Inversion, Example 1. Finding the inverse of a Matrix. Inverting and n x n Matrix. Using the inverse to solve a system of n Linear Equations in n Unknowns. Example 4.
9/14 – 9/18 Section 10.2 Limits and Continuity.

Exam #1 – Thursday

10/12 – 10/16 Section 11.2 The Chain Rule. Chain Rule in Differential Notation, Example 5.
10/19 – 10/23 Section 11.3 Derivatives of Logarithmic and Exponential Functions. Examples.
10/26 – 10/30 Section 11.4 Implicit Differentiation, Examples.

Drop Deadline – Friday, October 30

11/2 – 11/6 Chapter 12 Section 12.1 Maximum and Minima. Examples. Section 12.2 Application of Maxima and Minima
11/9 – 11/13 Section 12.2 Application of Maxima and Minima, Examples and review.

Exam #2 – Thursday

11/30 – 12/4 Chapter 13, Section 13.1. The Integral.
Grading Policy: **Quizzes, homework and class participation 25%**  
**Two in class exams 20% each**  
**Final exam: 35%**  
The usual standard grading scale will be used (90-100% = A, 80-89% = B, 70-79% = C, etc.).

Make-up Policy: Make-up exams and quizzes will be given only in extraordinary circumstances, which must be documented as early as possible. No late homework accepted. **There is no makeup final exam.**

Attendance Policy: It is the student’s responsibility to attend every class, if you miss a class, you will miss a lot of information. If you try to go from one class to another without studying, you will most likely be completely lost during the next class. Students are expected to arrive for class on time and to remain for the class entire period. It is essential to pay attention in class and take legible notes. It is essential to read the textbook and work through the example problems given in the book and class. Failure to accomplish the above, as a minimum almost invariably, ensures a less than satisfactory grade for this course.

Academic Integrity Policy: The University policy is that all suspected cases or acts of alleged scholastic dishonesty must be referred to the Dean of Students for investigation and appropriate disposition. Any student who commits an act of scholastic dishonesty is subject to discipline. Scholastic dishonesty includes, but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts. For further information, please refer to:  
http://academics.utep.edu/Default.aspx?tabid=23785 or  
http://www.lib.iastate.edu/commons/resources/facultyguides/plagiarism/dishonest.html.

Civility Statement: Calculators may not be shared during quizzes and exams. Please do not use cell phones, pagers, IPods, MP3 players, blue tooth devices, etc. during class. Cell phones and pagers should be set to silent or vibrate, and any calls should be taken outside of class. Please do not wear headsets or blue tooth devices during class. Please don’t talk in class. Cell phone calculators may not be used on quizzes or exams. Active participation in class is expected, teamwork in class will be implemented.
Disability Statement: If a student has or suspects she/he has a disability and needs an accommodation, he/she should contact the Disabled Student Services Office (DSSO) at 747-5148 or at <dss@utep.edu> or go to Room 106 Union East Building. The student is responsible for presenting to the instructor any DSS accommodation letters and instructions.

Military Statement: If you are a military student with the potential of being called to military service and/or training during the semester, please contact me by the end of the first week of class.

Homework assignments do not need to be handed in, and you will be expected to complete it by the next class period.

If a special Homework is assigned, you need to turn it in, the due date for this homework will be determined by the instructor.

Chapter 3
HW #1: Read Section 3.1, do 1, 3, 9, 11, 15, 17, 19, 25, 27, 37, 39, 41, 43, 45, 47
HW #2: Read Section 3.2, do 1, 5, 9, 13, 17, 23, 25, 29, 33, 45, 47, 49, 51, 53, 55, 57, 65
HW #3: Read Section 3.3, do 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 43, 45, 47, 49, 51, 53, 55

Chapter 10
HW #4: Read Section 10.1, do 3, 5, 7, 9, 13, 15, 19, 21, 23, 25, 29.
HW #5: Read Section 10.2, do 1-13 (odd), 15, 17, 23, 31.
HW #6: Read Section 10.3, do 3, 5, 7, 9, 13, 17, 19, 21, 27, 29, 31, 33, 35, 37, 41, 43, 45, 47.
HW #7: Read Section 10.4, do 1, 3, 5, 7, 9, 11, 13, 15, 17, 25, 27, 31, 33.

Chapter 11
HW #8: Read Section 11.1, do 13-41 (odd), 57-75 (odd).
HW #9: Read Section 11.2, do 1-35 (odd), 45-65 (odd), 83-93 (odd).
HW #10: Read Section 11.3, do 1-35 (odd), 45-65 (odd), 83-93 (odd).
HW #11: Read section 11.4, do: 1-7 (odd), 11-21 (odd), 31, 33, 35, 53, 55.

Chapter 12
HW #12: Read section 12.1, do: 1-35 (odd).
HW #15: Read section 12.4, do: 1-7 (odd), 23, 29-33.

Chapter 13
HW #16: Read section 13.1, do: 1-59 (odd).